

REMARKS

Claims 1 and 11 have been amended. Support for the amendments to claims 1 and 11 can be found in the specification as originally filed, for example, in paragraph [0030] on page 15 and paragraph [0041] on page 20. No new matter has been added. Claims 1-11 are presented for further examination, with claims 1 and 11 being independent.

~~The rejection of claims 1-11 over JP 10-022279 ("Fukuyama") in view of~~ U.S. Patent Nos. 6,663,715 ("Yuda") is respectfully traversed with respect to the amended claims. In view of the foregoing amendments and following remarks, reconsideration and withdrawal of the rejections are respectfully requested.

Amended independent claim 1 recites a plasma film forming apparatus comprising, *inter alia*, a plasma excitation gas supply port for supplying a plasma excitation gas at least from a lower side toward **a central portion of** a region on the high frequency wave supply unit side. Similarly, amended independent claim 11 recites a plasma film forming method comprising, *inter alia*, supplying a plasma excitation gas at least from a lateral side and a lower side to **a central portion of** a plasma generation region.

In contrast, Fukuyama discloses that a ring-shaped oxygen gas supply nozzle 14 supplies an oxygen gas to an oxygen gas plasma 28. The **ring-shaped** oxygen gas supply nozzle 14 supplies the oxygen gas **obliquely upward** as shown in Fig. 1. Therefore, Applicant respectfully submits that it is difficult for the gas supply nozzle 14 to supply the oxygen gas uniformly and generate plasma under a dielectric window 5, especially under **a central portion of** the dielectric window 5.

The Office Action cites Yuda as disclosing "supplying source gas (film forming gas, 19) and plasma confining electrode (5) having opening in a single body and the oxygen radical (21) from the oxygen plasma passes through hole or opening 13". (Pages 2-3). Yuda discloses that oxygen gas 18 is introduced into a high frequency wave applying electrode 1 in the CVD chamber and is then supplied uniformly from the bottom of the electrode 1 toward a plasma confining

electrode 20. (Page 4, Paragraph [0065]). However, Yuda does not disclose or suggest supplying oxygen gas *from a lower side* to the oxygen plasma 22.

According to the presently claimed plasma film forming apparatus and plasma film forming method, plasma excitation gas is supplied at least from the lower side. Accordingly, the plasma excitation gas can be sufficiently supplied to the central portion of the region on the high frequency wave supply unit side where the gas from another plasma excitation gas supply port on a lateral side hardly reaches.

Additionally, the plasma excitation gas supply port can supply the oxygen gas uniformly within the central portion of the region where a high frequency wave electric field is the strongest. Therefore, plasma can be easily generated.

Such an effect cannot be obtained by the proposed combination of Fukuyama and Yuda, neither of which discloses or suggests such an effect. The proposed combination of Fukuyama and Yuda does not disclose or suggest a plasma film forming apparatus comprising, *inter alia*, a plasma excitation gas supply port for supplying a plasma excitation gas at least *from a lower side* toward *a central portion of* a region on the high frequency wave supply unit side, as recited in independent claim 1, or a plasma film forming method comprising, *inter alia*, supplying a plasma excitation gas at least *from a* lateral side and a *lower side* to *a central portion of* a plasma generation region, as recited in independent claim 11.

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

Serial No. 10/579,777  
Reply to Office Action  
January 12, 2009

please charge any deficiency in fees or credit any overpayments to Deposit  
Account No. 05-1323 (Docket #101994.57726US).

January 12, 2009

Respectfully submitted,

  
\_\_\_\_\_  
Asaf Batelman  
Registration No. 52,600

CROWELL & MORING LLP  
Intellectual Property Group  
P.O. Box 14300  
Washington, DC 20044-4300  
Telephone No.: (202) 624-2500  
Facsimile No.: (202) 628-8844  
JDS:AB/cee  
dn#7011937